OUTER CONTINENTAL SHELF LEASE SALES: EVALUATION OF BIDDING RESULTS AND COMPETITION

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Introduction

This report analyzes the three Outer Continental Shelf (OCS) oil and gas lease sales held in FY 1996, two in the Gulf of Mexico (GOM) and one in the Beaufort Sea, and evaluates competition for leases pursuant to Sections 8 and 15 of the OCS Lands Act (OCSLA) (43 U.S.C. 1337 and 1343).

The annual reports to Congress on OCS sales from 1978 through 1983 focused on the use of alternative bidding systems (other than cash bonus bidding with fixed royalty) as one means for attaining the multiple objectives of the OCSLA, as amended. However, analyses of the alternative systems used in the offering of over 6,400 OCS tracts during the 5-year test period (1978-83) did not find statistical evidence that either competition or Government revenues from the OCS were enhanced.[1] For this reason, no alternative bidding systems were used in sales held from 1984 through 1995.

However, in November 1995, the Deep Water Royalty Relief Act (DWRRA) of 1995 was enacted. The DWRRA provides for potential royalty relief on new leases in water depths of 200 meters or greater in the GOM, west of 87 degrees, 30 minutes West longitude. This law as well as other factors like increased future price expectations affected the level of bidding activity observed in GOM lease sales in 1996.

The report's objectives are to review bidding results and to assess industry competition in the three sales held during FY 1996. Cash bonus bidding with both 1/6- and 1/8-royalty rates was used in each sale GOM with a $25 per acre minimum bid requirement. In addition, to comply with the DWRRA in the GOM, potential royalty suspension volumes by water depth category were set as follows:

(1) 17.5 million barrels of oil equivalent for leases in water depths of 200 to 400 meters;
(2) 52.5 million barrels of oil equivalent for leases in water depths of 400 to 800 meters;
(3) 87.5 million barrels of oil equivalent for leases in water depths greater than 800 meters.

Cash bonus bidding with a 1/8-royalty rate was used in the Beaufort Sea sale with a $25 per acre ($63 per hectare) minimum bid requirement.

Review of FY 1996 Lease Sales and Bidding Systems

Three OCS lease sales were held in FY 1996: Sale 157 in the Central Gulf of Mexico (CGOM), Sale 144 in the Beaufort Sea, and Sale 161 in the Western Gulf of Mexico (WGOM).

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[1] See the Annual Report to Congress for FY 1983 and for FY 1984-1986 on the evaluation of alternative bidding systems and competition (U.S. DOI, 1984, 1987).

In the two GOM sales, 10,817 tracts (almost 59 million acres) were offered and 1,541 tracts (8.2 million acres) received bids. Of the tracts receiving bids, 97.9 percent (1,508 tracts) were leased. In the Beaufort Sea sale, 1,413 tracts (about 2.95 million hectares or 7.29 million acres) in 1,364 bidding units were offered and 47 tracts (0.04 million hectares or 0.10 million acres) in 29 bidding units received bids. Of the tracts receiving bids in the Beaufort Sea, all were leased. Sale results for the fiscal year are summarized in Table 1.

Table 1. Bidding Results for FY 1996 Lease Sales

	Sale 157 CGOM (4/24/96)	Sale 144 Beaufort Sea (9/18/96)	Sale 161 WGOM (9/25/96)	Total FY 1996 (3 Sales)
Tracts Offered[2]	5,649	1,364	5,168	12,181
- Receiving Bids	924	29	617	1,570
- Leased	902	29	606	1,537
- Percent Rejected	2.4	0.0	1.8	2.1
Bids Received	1,381	31	929	2,341
Average Bids/Tract	1.49	1.07	1.51	1.49
Sum of All Bids ($MM)	716.1	14.6	503.6	1,234.3
Sum of High Bids ($MM)	520.9	14.4	356.1	891.4

Overall bidding results by royalty rate and DWRRA water depth zone for the GOM sales held in FY 1996 are shown in Table 2. As in previous GOM sales, a water-depth criterion was used to assign royalty rates. In the GOM, a fixed 1/6-royalty was specified in water depths of less than 400 meters and a fixed 1/8-royalty is specified in water depths of 400 meters or more. However, for water depths of 200 meters or more, DWRRA-specified royalty relief volumes apply on new leases. (The royalty suspension volumes are listed in the introduction.)

The bidding results for the Beaufort Sea sale are presented in Table 4. In the Beaufort Sea, a fixed 1/8-royalty was used on all tracts offered.

[2] "Tracts Offered" should be interpreted to mean bidding units if a bidding unit includes more than one tract, i.e., the specific unit ot area offered for bid in a sale.

Table 2. GOM Lease Sale Bidding Results for FY 1996 by Royalty Rate

	Fixed 1/6-Royalty		Fixed 1/8-Royalty		
FY 1996 (2 Lease Sales)	Less than 200 meters	200 to 400 meters	400 to 800 meters	More than 800 meters	Total
Tracts Offered	2,880	319	593	7,025	10,817
- Receiving Bids	637	69	113	722	1,541
- Accepted	620	67	109	712	1,508
Bids Received	1,025	117	187	981	2,310
Average Bids/Tract	1.61	1.70	1.65	1.36	1.50
Percent of Tracts with Multiple Bids	34.4 %	37.7 %	40.7 %	22.0 %	29.2 %
Sum of High Bids ($MM)	387.2	57.6	84.0	348.3	877.1
Mean High Bid ($MM)	0.61	0.83	0.74	0.48	0.57

Table 2 indicates that although the majority of tracts receiving bids in FY 1996 GOM sales were deep water tracts with 1/8-royalty rates, the shallow water tracts with 1/6-royalty rates had greater competition as measured by average number of bids per tract. The deep water tracts (400 or more meters) accounted for 54.2 percent of tracts receiving bids, 54.4 percent of tracts leased, and 49.3 percent of high bids received in the two FY 1996 GOM lease sales. However, the 1/6-royalty rate tracts had more competition than 1/8-royalty tracts as evidenced by a greater proportion of tracts receiving two or more bids and by a higher average number of bids per tract. The 1/6-royalty tracts also received a mean high bid per tract that was almost 22 percent higher than the tracts with the lower royalty rate.

As shown in Table 3, the mean high bid of $0.57 million per tract receiving a bid was an increase of 16.3 percent compared to the FY 1995 sales. One of the factors likely contributing to this increase was the availability of royalty relief for tracts in water depths of 200 meters or more as specified in the DWRRA. Therefore, bidders would be expected to offer a portion of their potential savings in royalty payments as higher bonus bids. In addition, between the FY 1995 and FY 1996 GOM lease sales, oil prices increased by about $5.00 per barrel, which could be perceived as an indication that higher prices in the future when production from new leases would occur are possible. Thus, increased future price expectations could also encourage higher bonus bids.

Table 3. Mean High Bid ($ millions) per Tract (FY 1990 - FY 1996), GOM Sales

Fiscal Year	Fixed 1/6-Royalty	Fixed 1/8-Royalty	Total (Both Rates)
FY 1990	0.73	0.60	0.70
FY 1991	0.59	0.34	0.50
FY 1992	0.41	0.43	0.41
FY 1993	0.39	0.28	0.37
FY 1994	0.62	0.23	0.58
FY 1995	0.57	0.32	0.49
FY 1996	0.63	0.52	0.57

Table 4 indicates that the mean high bid for the Beaufort Sea sale was only 12.2 percent lower than the mean high bid for the GOM sales in FY 1996. The average high bid for the Beaufort Sea sale is a bit misleading though because one tract (Y01650) received a high bid of $10.6 million or about 73.6 percent of the sale's aggregate high bids. If that one tract was not considered, the mean high bid for the remaining tracts is $0.14 million, which is about 25 percent of the FY 1996 GOM mean high bid. In addition, competition as measured by the average number of bids per tract was much lower for the Beaufort Sea sale compared to the GOM sales. However, the highest bid in the Beaufort Sea sale was comparable to the highest bids in the FY 1996 GOM sales in spite of the high costs associated with Arctic development and production.

Table 4. Beaufort Sea Lease Sale Bidding Results for FY 1996

FY 1995	Fixed 1/8-Royalty
Tracts Offered - Receiving Bids - Accepted	1,364 29 29
Bids Received Average Bids/Tract	31 1.07
Percent of Tracts with Multiple Bids	6.5 %
Sum of High Bids ($MM)	14.4
Mean High Bid ($MM)	0.50

Performance of Bidder Groups in Lease Sales

This section discusses the rate of winnings (percent of successful high bids and acreage) acquired by the restricted joint-bidder (RJB) group. The RJB's are specified pursuant to 30 CFR 256.41 and entities identified are restricted from bidding with other specified entities unless bidding is with an affiliate or subsidiary within the same group.

During the portion of FY 1996 when the lease sales were held, four companies and their subsidiaries were identified as RJB's: Exxon Corporation; Shell Oil Company; Mobil Oil Corporation; and BP America Incorporated. (A full listing of all companies in each group is included in Appendix A.)

Tables 5 and 6 present bidding results for RJB's and nonrestricted bidders. For both bidder groups analyzed, the sale data were adjusted to account for the percentage share of ownership attributable to firms in each group (i.e., a joint bid that was 50 percent RJB and 50 percent nonrestricted would result in 50 percent of the high bid and acreage being assigned to each group).

In FY 1996, nonrestricted bidders continued to be the dominant force in the GOM as they were high bidders on 67 percent of the acreage leased and accounted for 79 percent of the winning high bids, in terms of dollars bid. Since FY 1990, nonrestricted bidders were awarded at least 66 percent of the acreage leased and submitted at least 70 percent of the winning high bid dollars.

Table 5. Acreage Leased to Restricted Joint Bidders Versus Nonrestricted Bidders
FY 1990 - FY 1996, GOM Lease Sales

Fiscal Year	Percentage of Acreage Leased		Number of Entities Participating
	Restricted	Nonrestricted	
1990	34	66	106
1991	33	67	101
1992	17	83	71
1993	22	78	71
1994	22	78	82
1995	26	74	94
1996	24	76	105

The nonrestricted bidders' share of winning high bid dollars is greater than their percentage of acreage leased. This is probably the case because the nonrestricted bidders tend to acquire the majority of their leases in shallow water where, as indicated in Table 2, the competition has been relatively greater, and the tracts have received higher average bids than in deep water. Indeed, the nonrestricted bidders' percentage of high bid dollars has consistently exceeded their percentage of acreage acquired from FY 1990 through FY 1996.

The RJB's are active bidders in deepwater areas of the GOM (RJB's accounted for about 35 percent of the deepwater acres with bids and 28 percent of high bid dollars). Although the deepwater areas of the GOM have high costs of exploration and development, these areas also provide the potential for major discoveries that are of interest to large international companies that the RJB's tend to be. Conversely, a number of nonrestricted bidders are independent natural gas and oil companies that are interested in exploring and developing smaller fields in shallow water where the costs and risks are lower than the deepwater areas.

Table 6. Winning High Bids by Restricted Joint Bidders Versus Nonrestricted Bidders
FY 1990 - FY 1996, GOM Lease Sales

Fiscal Year	Percentage of Winning High Bids		Number of Entities Participating
	Restricted	Nonrestricted	
1990	30	70	106
1991	20	80	101
1992	13	87	71
1993	13	87	71
1994	11	89	82
1995	17	83	94
1996	17	83	105

Bidding Systems

Section 8(a) of the OCSLA required testing of alternative bidding systems over a 5-year period from September 18, 1978 to September 17, 1983. This subject was discussed in detail in the 1987 Annual Report. The inconclusive bidding results achieved during the test period as well as the administrative complexity of some of the systems tested led the

Department of the Interior (DOI) to cease experimenting with alternative systems. However, the use of these systems could be specified for future OCS sales if analysis determines that their use could best meet the OCSLA’S goals.

In November 1995, the DWRRA was passed, which requires use of bidding systems that allow for royalty suspension volumes in water depths greater than 200 meters for leases awarded in the Central and Western GOM lease sales that occur prior to November 28, 2000. Thus, in the FY 1996 oil and gas lease sales in the GOM, the royalty rates continued to be those used in the past, but in water depths of 200 meters or more, royalty relief was provided at the depth-specific rates mandated in the DWRRA. The provision of royalty relief appears to have encouraged bidding activity in deep water areas of the GOM as record numbers of tracts in water depths of 200 meters or more received bids in Sales 157 and 161.

Supplies of Oil and Gas for Independent Refiners

Section 15(2)(E) of the OCSLA requires the Secretary to provide "an evaluation of present measures and a description of additional measures dealing with supplies of oil and gas to independent refiners and distributors." In 1996, the number of royalty-in-kind contracts continued to be four for onshore crude oil and decreased from ten to nine for OCS oil at the end of the year. In the past year, about 30 million barrels of OCS oil were used in this program.

In addition, Section 8(b)(7) of the OCSLA includes a provision requiring lessees to offer 20 percent of the crude oil, condensate, and natural gas liquids produced from a lease to small or independent refiners. For the fiscal year, more than 30 million barrels of liquid hydrocarbons were available from leases containing this requirement. The exchange of liquid hydrocarbons under this lease obligation is handled directly between the lessee(s) and an eligible refiner without Government intervention.

The MMS's Royalty Gas Marketing Pilot (pilot) began on January 1, 1995, and ended on December 31, 1995. The pilot was a test of the concept of MMS taking the Federal Government's royalty share of gas production in-kind from 79 offshore Federal leases and selling the gas at or near the wellheads to competitively chosen gas marketing companies.

During the pilot, MMS took almost 6 percent of its royalty gas in the Gulf of Mexico in kind, selling it to 14 gas marketers under sealed competitive bids. The objectives of the pilot were 1) to find processes for streamlining royalty collections in a manner that reflects the recent changes in the gas market and 2) to test a process of royalty collection that might provide for increased efficiency and greater certainty in royalty collection without compromising revenue collection.

The pilot was an operational success and provided the data MMS needed to evaluate the concept. The MMS conducted a revenue impact analysis which found that the agency received approximately $4.7 million or 6.5 percent less than what it would have collected had royalties been paid in-value during the year. MMS concluded that the loss, in part, was due to the fact that marketing costs may not be deducted from in-value royalties whereas MMS did incur marketing costs under its third-party gas sales contracts.

MMS's evaluation of the pilot indicates that in-kind collection procedures must be redesigned if revenue losses are to be avoided. MMS intends to consider alternative approaches for receiving royalties in kind. To this end, MMS is planning workshops to be held in FY 1997. The workshops will include representatives from industry and other interested parties.

Schedule of FY 1997 Lease Sales

Lease sales scheduled for FY 1997 under the 5-year leasing program are listed in the table below.

Lease Sale (Date)	Bidding Systems
Sale 166 - CGOM (March 1997)	Cash bonus, fixed 1/6-royalty Cash bonus, fixed 1/6-royalty with potential royalty suspension volume Cash bonus, fixed 1/8-royalty with potential royalty suspension volume
Sale 149 - Lower Cook Inlet (June 1997)	Cash bonus, fixed 1/8-royalty
Sale 168 - WGOM (August 1997)	Cash bonus, fixed 1/6-royalty Cash bonus, fixed 1/6-royalty with potential royalty suspension volume Cash bonus, fixed 1/8-royalty with potential royalty suspension volume

APPENDIX A

Restricted Joint Bidders in OCS Oil and Gas Sales during FY 1996

Under the joint bidding provisions of 30 CFR 256.41, each entity within any of the groups shown in the "List of Restricted Joint Bidders" is precluded from bidding with any entity in any other identified group at OCS oil and gas lease sales held during the specified bidding periods.

For FY 1996, pertinent List of Restricted Joint Bidders were published in the Federal Register as follows:

> October 16, 1995, (at 60 FR 53642) for the bidding period November 1, 1995, through April 30, 1996.
>
> April 10, 1996, (at 61 FR 15968) for the bidding period May 1, 1996, through October 31, 1996.

The four companies and subsidiaries identified in each list were:

Group I. Exxon Corporation; Exxon San Joaquin Production Co.

Group II. Shell Oil Company; Shell Offshore Inc.; Shell Western E&P Inc.; Shell Frontier Oil & Gas Inc.; Shell Consolidated Energy Resources Inc.; Shell Land & Energy Company; Shell Onshore Ventures Inc.; CalResources LLC.

Group III. Mobil Oil Corporation; Mobil Oil Exploration and Producing Southeast Inc.; Mobil Producing Texas and New Mexico Inc.; Mobil Exploration and Producing North America Inc.

Group IV. BP America Inc.; The Standard Oil Co.; BP Exploration & Oil Inc.; BP Exploration (Alaska) Inc.